

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 8, 10-14 and 18-21 are pending in this application. Claim 8 is amended. Further, Applicants note this Amendment is submitted concurrently with a Request for Continued Examination in light to the amendment to claim 8 raising new issues requiring further search and/or consideration.

Claim Rejections under 35 U.S.C. § 112, first paragraph

Claims 8, 10-14 and 18-21 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claim 8:

Initially, Applicants note that claim 8 is the only independent claim. Regarding claim 8, the Office Action poses the question “where is there support for ‘determining endurance of the optical disk *based on* a jitter value of 10%’ (italics added)? Please note that the single horizontal dashed line in Figure 6 does not seem related to a threshold of failure, as suggested on p. 6 of the **REMARKS**.”¹ Further, the Office Action indicates “[t]hat since dashed line is just there, *with both ‘Fail’ and non-fail points both above and below the dashed*

¹ Final Office Action mailed January 14, 2008, page 3, lines 7-11.

line, which line is allegedly associated with a threshold of failure (or endurance, if you will).”²

Applicants submit that the example graph illustrated in FIG. 6 of this application, and the description thereof, indicates that jitter is an indicator for endurance of an optical disc. Applicants submit the dotted horizontal line in Fig. 6 is not **“just there”** as asserted by the Examiner. In FIG. 6, as the number of rotations and the pressure applied to the disc increases, the jitter value increases. Further, when the jitter value becomes greater than about 10%, failures may occur. As such, by obtaining the jitter value and then comparing the obtained jitter value to a threshold jitter value of 10%, one may determine that the optical disc is considered deficient. For example, one may determine a disc is not deficient if the measure jitter value is less than 10% according to FIG. 6.

Further, regarding the assertion that there are fail points both above and below the horizontal dashed lines, Applicants provide the following information. Please note that below the dashed line, there are **only non-fail points**. Applicants note the Examiner may be considering the black square with the white circle therein as a fail point. However, Applicants note that this black square with the white circle therein is at 0 turns. This represents the starting point and the vertical dotted line extending from the black square with the white circle therein indicates that jitter value would be greater than 20% in less than one turn when the pressure of 1000gf/cm² is applied. Further including

² Final Office Action mailed January 14, 2008, page 3, lines 13-16.

the point above 20% on the graph would result in the more important features relating to the lower pressures being relatively indistinguishable.

Regarding the alleged non-fail points of the two solid circles above the horizontal dotted line, Applicants note that no threshold is generally ideal. Stated differently, any threshold is generally going to result in some false-positive or false-negative results. As such, in many situations a threshold is set considering the consequences that occur as a result of a false-positive and a false-negative. When determining a disc is deficient, one would rather have a situation in which false-positives occur, i.e., some discs will be considered deficient even if they are in fact okay. The reasoning is that it would be better to discard discs at an earlier stage of manufacturing rather than attempt to record information on the disc, provide the disc to the user and then have the disc fail. Accordingly, Applicants submit the non-fail points above the horizontal dotted line are merely a factor of setting a threshold to ensure that false negatives do not occur, i.e., a disc is sent to the user that is defective. In other words, the threshold is set to error on the side of false-positive results occurring.

Also, the Office Action raises a question for how endurance is a function of jitter. Please note that the endurance of an optical disc is not a function of jitter. Jitter is only an indicator for endurance of an optical disc.

Claim 11:

Applicants maintain support for claim 11 is provided by at least paragraph [0017] of the originally filed specification. The Office Action rejects claim 11 for the reason only two points are provided and that does not mean that there is only an inversely relationship. In the original description, two points (for low pressure and high number of rotation and vice versa) are described. However, one meaning of inversely proportion is product (multiplication) of two variables is constant. In the original description, the low pressure and high number of rotation and vice versa was intended to show such a relation. Further, Applicants submit that one skilled in the art would readily understand paragraph [0017] as providing support for the features recited in claim 11. As such, Applicants submit that specification amendment to include paragraph [0016.1] submitted in the Amendment filed February 2, 2007 should not be considered new matter.

Claims 18-21 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse this rejection as detailed below.

Regarding claims 18-21, Applicants again respectfully submit that each of the terms “symbol error rate”, “bit error rate”, “servo error signal”, and “tracking error signal” **are well-known in the art** and thus, the terms themselves do not need to be further defined. Further, Applicants respectfully submit that a “symbol error rate”, “bit error rate”, “servo error signal”, and

“tracking error signal” may be used in a similar manner as jitter value to determine whether a disc is normal or deficient. Therefore, Applicants respectfully submit that at least FIG. 6 and paragraphs [0035]-[0037] of the specification provide an enabling disclosure for claims 18-21.

In light of the above, Applicants respectfully request that all of the rejections under 35 U.S.C. § 112, first paragraph be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 8 and 10-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashida et al. (U.S. Publication No. 2002/0054975, herein Hayashida).

Initially, Applicants respectfully note that the method for testing endurance of an optical disc of independent claim 8 recites, *inter alia*, “applying pressure on the optical disc using a scratching unit **while the optical disc rotates for up to five rotation turns**, so as to produce a scratch on a surface of the optical disc, resulting from a contact with the scratching unit; and determining whether the optical disc is deficient or normal on the basis of the scratch produced on the optical disc, wherein the optical disc is determined to be deficient if a jitter value measured from the scratch is over 10%.” Applicants respectfully submit that at least the above-emphasized feature of amended independent claim 8 patentably distinguish over Hayashida.

In particular, paragraph [0091] of Hayashida, which is cited by the Examiner, specifically states that “[t]he abrasion test procedure using abrasive

wheels prescribed by ISO 9352 is a test procedure commonly known as Taber abrasion test and is carried out as follows.” The remainder of paragraph [0091] goes on to describe the well-known Taber abrasion test. Applicants note the Taber abrasion test referred to in paragraph [0091] of Hayashida is specifically referenced in the “Background of the Invention” section of the Applicants’ specification at page 3, paragraph [0007]. In particular, paragraph [0007] of the Applicants’ specification states the following.

Also, in the taber abrasion test, while using the abrasion wheel, the abrasive wear on the surface of the optical disc is very different from the scratches on the optical disc. Therefore, testing the endurance of the optical disc based on the abrasive wear caused by the abrasion wheel is not appropriate.

Applicants respectfully submit that this is evidence that the example embodiments described in the Applicants’ specification and the features recited in amended independent claim 8 are not obvious in view of the Taber abrasion test.

Further, claim 8 recites “applying pressure on the optical disc using a scratching unit **while the optical disc rotates for up to five rotation turns.**” Regarding this feature, the Examiner identifies TABLE 3 of Hayashida as being “suggestive of the use of 5 cycles in an abrasion test” presumably because TABLE 3 includes a column heading of 5 Abrasion cycles. However, TABLE 3 provides no ground to limit the number of cycles to 5 turns since 0 to 500 turns are shown in the table. Further, paragraph [0091], specifically **teaches away** from using 5 cycles or less by saying “[f]or general hard coat layers in optical information media, it is preferred to abrade them by using

elastic abrasive wheels selected from CD-10, CS-10F, and CS-17, and rotating the turntable **over 10** to 500 cycles under a load of 2.5 N to 9.8 N.”

Accordingly, absent impermissible hindsight analysis, the teachings of Hayashida do not render obvious “applying pressure on the optical disc using a scratching unit **while the optical disc rotates for up to five rotation turns,**” as recited in amended independent claim 8.

In light of the above, Applicants respectfully submit that amended independent claim 8 patentably distinguishes over Hayashida and respectfully requests that the rejections of claim 8, and the claims depending therefrom, be withdrawn.

CONCLUSION


In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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